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INTEGRATION OF INFORMATION FOR HOSPITAL RATE SETTING

VOLUME 9: INFORMATION AVAILABLE FOR HOSPITAL RATE SETTING IN MASSACHUSETTS

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INTEGRATION OF INFORMATION FOR HOSPITAL RATE SETTING

VOLUME 9: INFORMATION AVAILABLE FOR HOSPITAL RATE SETTING IN MASSACHUSETTS

by

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PREFACE

This is one of a series of working papers in a project whose task is to explore the types of information required to permit equitable hospital rate setting, and the obstacles to its access, integration and use.

As part of the effort to identify the general scope of information required to establish hospital rates, analysis was made of the information presently employed in five different states: Arizona, Maryland, Massachusetts, New York and Washington. This report on Massachusetts like those on the other states, was based on an examination of the various reporting forms employed and other background materials, together with interviews with officials both in the agency responsible for administering the rate setting program and in the hospital association.

The report attempts to cover the relation of the information collected to the program's particular objectives and rate setting process, the types of data available, and the history of how the reporting system was developed. The characteristics of the reporting system are described and illustrated in charts or exhibits. Problems of validating, managing and using the information are discussed. Finally an appraisal of the strengths and limitations of the information system is made according to criteria developed as part of this project and presented in the proceedings of its 1975 Conference on Uniform Reporting for Hospital Rate Reviews.

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1. BACKGROUND

Unlike most other states, the approximately 150 hospitals in Massachusetts have had some form of controls on their payment rates since the mid-1950's. The types of payors affected, the nature of the controls, and the organizational structure of the control body have all undergone fundamental changes between then and now. Even greater changes will ensue if a bill introduced in January 1976 to bring about comprehensive controls on charges to all payors is enacted.

This paper describes the information used by the Massachusetts Rate Setting Commission as of the fall of 1976, when its legal mandate included the establishment of prospective rates for Medicaid hospital payment and the review and control of charges to self-pay patients and to commercial insurance carriers. We will note only incidentally certain other responsibilities of the Commission and its previous and possible future types of controls on hospital rates. However, it should be observed at the outset that the relatively long history of various types of state involvement with rate approvals and rate setting in Massachusetts has given hospitals long experience in cost reporting. It has also built up the Commission's staff capacity for cost report analysis and audit to an unusually high level, compared to other states.

Background of the Massachusetts Commission

In 1968 the state legislature merged two previous rate-setting bureaus, one for hospitals and one for long-term care facilities, to form the Massachusetts Rate Setting Commission. Four of the five commissioners served on a part-time basis, with minimal pay; the Commissioner of Administration for the state, or his designee, served as Chairman. Weaknesses in this form of commission structure became apparent and, in 1973, the enabling law was amended to provide a full-time Commission of three members. They are appointed by the Governor, but the appointments

are not coterminous. The Commission has an Advisory Council on which heads of other health regulatory agencies serve, along with provider and consumer representatives.

Besides its hospital and clinic rate setting and charge control responsibilities, which will be described below, the Commission also establishes rates for long-term care facilities, community and home health agencies, non-institutional medical providers and education and social services. The Commission also must approve the terms of Blue Cross contracts. The state and Blue Cross conduct a combined hospital audit.*

The Commission has a staff of approximately 100, half of whom work primarily in the area of hospital rate setting. These staff members are, with few exceptions, on the Blue Cross payroll, but are subject to hiring, firing and supervision by the Commission. Of this hospital rate setting staff, 6 are supervisory, 10 are cost and budget analysts, and 24 are auditors. Many of these staff members perform functions interchangeably and in addition to regularly assigned duties, work on special studies and program development.

The objectives and forms of Commission controls on Medicaid rates are different from those for charges to self-pay patients, and must therefore be described separately. However, as we shall see, the basic cost and statistical information collected annually from the hospitals undergirds both processes. In the case of the charge control program, budget projections and certain other data are added.

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* The Massachusetts Blue Cross contract pays hospitals on a lesser of cost or charge basis, retrospectively determined.

The Medicaid Program - Objectives and Rate Setting Method

Medicaid spending first began to create fiscal crises in Massachusetts during the late 1960's; in 1968, the then Governor stated, "Control of the Medicaid Program is the most critical problem I face." During this period, too, the program became seriously delinquent in its final payments to the hospitals, causing them serious cash flow problems and bringing Massachusetts out of compliance with federal regulations.* As a way out of its problem, the state sought and obtained a DHEW waiver from the prescribed cost reimbursement method, and in April 1974 the Commission implemented regulations that provided for the establishment of prospective rates of payment for all inpatient and outpatient hospital care and services rendered to publicly aided patients. The specific objectives of the prospective system were:

- to keep inflation in hospital costs at the same level as inflation of wages and prices in the economy as a whole; and
- to stop subsidizing excessive costs of underutilized hospital services.

The Commission employes an admittedly crude formula approach to develop inclusive per diem inpatient rates for the Medicaid program. Each hospital's operating costs from the base year (two years prior to the rate year) are projected forward by an inflation factor. The portion of hospital non-operating costs allocated to inpatient services (depreciation, interest, etc.) is then added. An imputed per diem cost for the rate year is calculated so that it constitutes a ceiling on the per diem rate that will be paid to the hospital for Medicaid patients in the coming rate year.** Unlike the New York system that served as

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* As of February 1976, the state is still delinquent in its reimbursement to hospitals for care rendered to Medicaid patients during this period, to the tune of an estimated $20 million.

** The prospective rate for industrial accident patients is calculated somewhat differently.

the general model for this formula, no hospital grouping is employed in calculating the per diem Medicaid ceiling limits.

The rate calculations in the Medicaid program assume inpatient occupancy minimums of 60 percent for maternity services, 75 percent for adult and children services in non-teaching hospitals, and 80 percent for these services in teaching hospitals. The outpatient rate is computed as an allowable percentage of charge, determined by the outpatient cost-to-charge ratio in the two-year old base year.

Interim Hospital Charge Review System

A problem inherent in the Medicaid prospective reimbursement system has been its inability to control the hospitals' base costs over time. Since Medicaid payments comprise only about 15 percent of total hospital revenue, hospitals could continue to incur expenses at higher rates than the state's Medicaid formula permitted, shifting any unallowed Medicaid costs to other payors. After two years, such costs would become absorbed in the hospitals' new base year costs upon which the future Medicaid prospective rates would be projected. Convinced that an effective method of Medicaid cost control must also include the capacity to control total hospital expenditures, in early 1975 the Commission began designing a comprehensive charge control program that could extend to all types of payors. Meanwhile, as Medicaid program expenditures reached almost $600 million in April 1975, the Governor suddenly requested the legislature for authority to impose an immediate emergency 15-month freeze on all hospital charges throughout the state. Hospitals successfully opposed the proposal, but, as a compromise, supported an interim emergency charge control bill. The law, Chapter 424 of the Acts of 1975, enacted in July and effective in August, was seen as a temporary measure to maintain controls until a more carefully developed charge control law could be developed and adopted. It requires that hospitals submit any proposed modification of their charges to the Commission, and that

Commission approval be secured before new charges are implemented. The requirement applies to:

- charges implemented between the date of the Governor's freeze proposal and end of the 1975 fiscal year;
- charges proposed for the hospitals' 1976 fiscal year (beginning October 1, 1975), and for subsequent changes; and
- charges for new services.

The purpose of the law and its ensuing regulations (14CHSR-4) is to ensure that increases in hospital revenues are kept directly in line with increases in hospital costs deemed allowable by the Commission, i.e., it seeks to control hospital costs by restricting revenue, and by reducing the possibility that hospitals will generate excess revenue that will, in turn, allow them to increase their expenditure.

Each hospital's cost/charge ratio is pegged to its ratio during a designated Ratio Year (April 1, 1974--one month before the end of the federal wage price freeze--to March 31, 1975). If a hospital's aggregate cost/charge (total) revenue ratio is greater than 95 percent, it may seek charge increases sufficient to establish the ratio at 95 percent so as to prevent locks into loss positions, such as sometimes happened under the federal wage-price control program. Chapter 424 applies to charges to self-pay patients, to patients paid for by insurance companies, and by the Blue Cross plan in hospitals where the plan reimburses according to charges rather than costs.

In addition to the cost reports hospitals have been submitting to the Commission since 1958, to implement Chapter 424 they now must submit annually a package of charges and budget materials. To evaluate a hospital's requests for charge increases, the Commission subjects the data it receives from the cost and budget reports to a series of screens for:

- increases in allowable costs caused by inflation, as measured by an inflation index;*
- cost increases or decreases as a function of volume changes; and
- cost increases resulting from factors beyond the control of the hospital.

Costs in excess of those allowed by these screens, unless the hospital can specifically justify them to the Commission through appeals, are subtracted from the cost base upon which total allowable revenues are calculated. Charges for new services, involving changes in expenditures or revenues exceeding $50,000, are handled separately.

Statutory Authority to Collect Data

From its inception, the Massachusetts Rate Setting Commission has always had strong statutory authority to collect any information it needs from hospitals. Chapter 1229 of the Laws of Massachusetts, 1973, states that:

> Any provider of health care services which receives reimbursement or payment from any governmental unit. . .shall. . .(1) permit the commission, or any designated representative thereof, to examine such books and accounts as may reasonably be required for it to perform its duties; (2) file with the commission from time to time or on request, such data, statistics, schedules or other information as it may reasonably require. . .

Punishments for failing to submit data, or for knowingly falsifying them, may take the form of fines and the withholding of reimbursement. In addition, after suitable adjudicatory proceedings, the license of the

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* It is beyond the scope of this paper to describe the Commission's definition of allowable costs. In general, it follows the Medicare definitions of all direct and indirect costs related to patient care, excluding research and recovered expenses; however, bad debts and free care are also allowable.

institution can be revoked.

In 1975, under Chapter 424 and its accompanying regulation, this authority to collect data is spelled out even more explicitly. The Commission may require hospitals to report all costs, charge, accounting, budgeting, administrative, and operating information for which it perceives a need. Information reported must be certified as true, correct and accurate. False reporting is subject to the common law penalty for perjury. Failure to submit required reports is subject to statutory fines, loss of Medicaid rate certification, disapproval of charge increase requests, or loss of license. All reported information and Commission audits, except for work papers, are public records.

Besides the types of financial data specified, a blanket clause in Chapter 424 requires that "each hospital shall file such additional information as the Commission may from time to time require."

II. TYPES OF DATA AVAILABLE

Our overview of the information available to the Commission will cover the various financial reports submitted by hospitals, reports on physician staffs, scope and quality of the hospital's services, capital budgets, data to permit cost impact statements of proposed new services, profiles of patient mix and diagnostic mix in hospitals, and inflation indicators.

Financial Reports

Hospitals currently prepare and submit three types of financial reports to the Commission:

- a hospital cost and activity report (RSC-401);
- quarterly cost reports during the rate year (RSC-401-A) that furnish the same types of data according to the same categories;
- a package of forms designed to implement Chapter 424 (RSC-CRS-1). Schedules report operating volumes, expense, and revenues for the Ratio Year, the current fiscal year, and projections for the upcoming fiscal year.

These three reports constitute the major data base for the Commission.

The RSC-401 cost report is employed by the Commission to determine actual costs to be trended forward for the Medicaid program's prospective reimbursement formula, and to set rates for Industrial Accident payments. It is used by Massachusetts Blue Cross to determine its interim payments to hospitals and to effect its retrospective cost-based reimbursement final settlement. The RSC-CRS-1 reports are used only for the charge control program.

Physician Compensation

Hospitals must submit a Physician Service Form (PS-1) to the Commission for each physician who receives compensation from the hospital. This form requests information on:

- type of hospital services performed for payment from the hospital;
- department;
- hours worked per week;
- rate of payment per annum;
- actual payment during fiscal period;
- type of service for which fee for service is billed (if a group practice, partnership, etc., the Medical Vendor Number of the group is to be reported).

The Commission does not require that the terms of physician agreements or contractual arrangements with the hospital be spelled out in reports. However, auditors usually secure this information during the course of site visits.

Scope and Quality of Services

The RSC-401 reports the number of each hospital's licensed beds for each patient care service and the bed complement in actual service, both at the beginning and end of the reporting period. However, the Commission has no way of displaying profiles of the range and scope of special services offered by each hospital in Massachusetts although much of this information can be obtained ad hoc from various parts of its financial cost reports.

There is no reporting on the nature of the attending medical staff, their distribution according to specialty, or their board certification status. The Commission does not learn the JCAH accreditation status of hospitals, nor does it know the number, types and approval status of intern and residency programs, schools of nursing, and other educational programs in hospitals. It receives no information from medical audits or about patient outcomes.

Casemix and Patient Characteristics

Massachusetts as yet does not have universal hospital discharge abstract reporting, although 90 hospitals with about 70 percent of the discharges belong to an abstract system developed by the Massachusetts Hospital Association (MHA), and several others belong to the PAS system. A recent grant from the National Center for Health Statistics to the Office of Planning and Statistics in the Department of Health may result in the development of a hospital care component of the Massachusetts Cooperative Health Information System. Reports from the proposed uniform discharge

data system would, it is hoped, meet the needs of PSRO's, planners, third party payors and hospitals, as well as the rate-setting body. The Commission intends to use such reports to factor in casemix, mix of surgical procedures by degree of complexity, and patient age and sex characteristics to produce burden of illness profiles of hospitals related to their cost profiles. The Commission's legal authority to require the reporting of data required for rate setting might, if necessary, be used to expedite program implementation.

Capital Budgets

Hospitals are required to file a projected three-year capital budget and to submit selected abstracts within 90 days of the end of the fiscal year. This was a new requirement in 1975, and the Commission is placing major emphasis on projects defined as those requiring certificate of need approval. No standard form for the budget has been designed, but hospitals are asked to supply answers to a standard list of questions on projects or equipment that require such approval. Projects are categorized as land improvements, buildings, building improvements, fixed equipment or major movable equipment (over $100,000), etc. The hospital must state its actual or proposed date of submission for certificate of need approval, or the date of approval if this has been granted. Besides asking for a description of a new project, its estimated total capital costs and date of completion, the hospital is asked to estimate its depreciable life and the estimated annual straight line depreciation and/or operating costs associated with the project. Finally, the hospital reports the proposed method of financing, the amount expected to be financed and the anticipated interest rate.

Submission of capital budgets marks an advance for the Commission in allowing it to anticipate future demands for rate increases; previously it had been forced to react to requests for rate increases for new hospital services that had long before received certificate of need approvals.

Information Sharing with the Department of Health

An important new aspect of the cost control effort in Massachusetts is to document the short and long run cost implications of hospital facility and program additions and expansions. To this end, the Secretary of Human Services encourages maximum cooperation between the Rate Setting Commission and the Department of Public Health, which administers the state's certificate of need program.

Beginning in January 1976, the Department has been furnishing to the Commission's staff copies of all certificate of need applications that might have noticeable effects on future costs. The Commission's staff conducts cost impact analyses. These have to do with the reasonableness of proposed costs of major construction or major purchases, the cost consequences to be expected from depreciation and interest, and increases in direct operating costs that may attend implementation of such proposals. The results are shared with the certificate of need staff. In addition, the Commission's staff works with the Department's staff on analyzing the economic impact of smaller proposals. In turn, the Department furnishes the Commission its population-based studies and analyses of community resources and needs. This joint staff activity centered around a common information base, along with drawing on historical cost data in the Commission files, is beginning to get underway as of the date of this report.

Inflation Indicators

A three-year Blue Cross contract with its member hospitals, effective in October 1973, contained plans designed to impose cost limitations on hospitals if and when the then operative federal wage/price control program ceased. To prepare for this eventuality, the hospitals and Blue Cross jointly employed a consulting firm, Harbridge House, to develop a composite Hospital Price Index that both parties could agree would provide a fair measure of hospital inflation.[1] This index, comparable

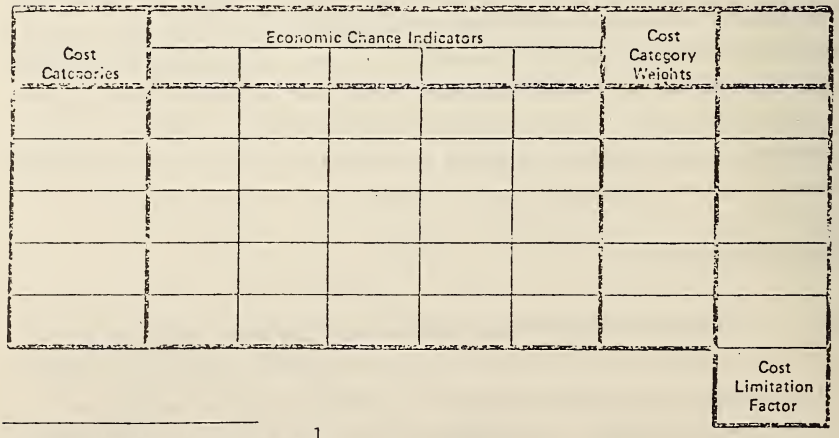
in general approach to those developed for the three New York State rate-setting programs (see the New York paper in this series), has been accepted with some modifications for use by the Commission.

The composite index is a matrix which consists of three primary elements:

- a set of 18 hospital cost categories for which annual changes in cost, due only to annual price-level changes (inflation/deflation), can be measured;
- a set of weights to be factored against the individual cost categories;
- a set of 18 economic change indicators that measures the annual rate of inflation/deflation associated with the elements of each cost category.

Exhibit A shows the basic model of the index.

EXHIBIT A: THE BASIC FORM OF THE MASSACHUSETTS INDEX



Source: Berger and Sullivan[1]

The cost category components are listed and defined in Appendix I together with sources of the data used to construct the economic change indicators.

As originally designed, the Hospital Price Index would produce a composite index for each hospital, according to the particular portion of that hospital's prior year costs attributable to each of the 18 expenditure components; i.e., it is assumed that each hospital has a unique expenditure pattern. To provide a simplified illustration, the combined (4) economic change indicators for labor factors in the index would be weighed at 72 percent where a hospital's combined labor inputs comprised 72 percent of its costs; in a hospital where labor costs comprised only 65 percent, the index weighing would be 65 percent. This individual inflation index is applied under the Commission's charge control program.

The indicators to be used for the hospital fiscal year, October 1, 1975 to September 30, 1976, are based on the percentage change between fiscal years 1974 and 1975. Exhibit B shows how they are spelled out in Chapter 424. The regulations also specify that the indicators be updated from time to time to keep them current.

EXHIBIT B: HOSPITAL PRICE INDEX:
INDICATORS AND INFLATION PERCENTAGES FOR CHARGE
CONTROL PROGRAM, FISCAL YEAR 1976

CATEGORY	INDICATOR	% CHANGE FY '74-75
1	BLS: National Survey of Professional, Administrative, Technical Pay (PAT) - salaries of Attorneys Level VI, Chemists Level VIII, Engineers Level VIII, Chief Accountants Level IV and Personnel Directors Level IV	9.71
2	BLS: PAT - salaries of Attorneys Level II, Chemists Level III, Engineers Level II, Accountants Level III, Personnel Directors Level I	8.08
3.	BLS: PAT - salaries of Chemists Level II, Accountants Level II, Engineering Technicians Level III, Job Analysts Level II, Draftsmen Level II	8.60
4.	BLS: Employment and earnings - earnings of non-supervisory workers in the private sector	7.69
5	BLS: CPI - All items	10.23
6	BLS: WPI - Processed Foods and Feeds less the Processed Feeds components	18.41
7	BLS: WPI - Drugs and Pharmaceuticals	14.68
8	BLS: WPI - Photographic Supplies	17.22
9	BLS: WPI - Office Supplies and Accessories	18.28
10	BLS: WPI - Textile Products and Apparel; Hides, Skins, Leather and Related Products; Chemicals and Allied Products; Rubber and Plastic Products; Lumber and Wood Products; Metals and Metal Products; and Non-Metallic Mineral Products	16.66
11	BLS: CPI - Residential Telephone Service	2.72
12 A	BLS: WPI - Commercial Power (40kw Demand)	23.34

CATEGORY	INDICATOR	% Change FY '74-75
12 B	BLS: WPI - Industrial Power (500kw Demand)	30.17
13	BLS: WPI - Natural Gas	37.06
14 A	Platt Oilgram - Fuel Oil #2 - New York	22.71
14 B	Platt Oilgram - Bunker C - New York	31.64
15	BLS: CPI - Services	10.26
16	American Appraisal Company: Price Level Index for Major Movable Equipment - Leased Equipment	10.13
17	BLS: CPI - Mortgage Interest Rate	4.80
18	BLS: CIP - All items	10.23

Besides these indicators, the method developed by Harbridge House included the factors of reimbursable depreciation, bad debts, and free care as separate components.

For the Medicaid program, the Commission does not permit the application of the H.P.I. to individual hospitals nor does it allow the inclusion of bad debts and free care. Instead, a single class inflation rate is calculated each year, to apply across the board to all hospitals. A model, "Commonwealth Hospital", is constructed with weights derived from averages of actual cost distributions in a representative sample of 53 Massachusetts hospitals during the prior year.

Historical Data

The new cost report, RSC-401, and a quarterly monitoring report, RSC-401A, were both introduced for the first time in 1975. They were designed almost entirely within the framework of the Commission's predecessor cost report, form HCF-400, on which hospitals had been reporting since 1965, so as to preserve the capability of performing trend

analysis of individual hospital costs and volumes. A few new schedules have been added and most of the former categories are broken down into considerably finer levels of details; there have also been some changes in output measures. Nonethless, the basic ability to trace the experience of each institution over time has been preserved. The former method of allocating indirect costs has been maintained, with its standard stepdown sequence. Although some statistical bases have been added and others have been changed in the new form, the basic framework persists.

III. HOW THE REPORTS WERE DEVELOPED

As already noted, the Massachusetts cost and budget report forms are submitted separately. Although they reflect different design histories and serve different program purposes, they are intended to be complementary and they provide points of data linkage. The RSC-401 cost report design was, as we have noted, premised on the overall goal of preserving compatibility with the prior cost report form. In addition the Commission staff attempted to draft the revision in a way to minimize duplicative reporting requirements of hospitals and to serve the purposes of all major reimbursing agencies in Massachusetts. As many elements as possible were incorporated from the Medicare cost report.* Although federal regulations blocked its use by the Medicare program, the new cost report continues to serve the needs of Blue Cross as well as those of the Commission.

A draft of the proposed report revision was reviewed at a public hearing in the summer of 1975. Subsequently, representatives of the Massachusetts Hospital Association, Blue Cross, commercial insurance

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* Major differences are: a) the handling of physician costs; and b) the statistical basis for allocation of depreciation fixed costs.

and the regional office of the Dept. of Health, Education and Welfare took part in more detailed discussions. The hospital association raised serious objections to the Commission's proposed retrospective introduction of the new forms for the 1975 fiscal year cost reports. Since many new categories and activity measures were to be introduced in the new forms, and since hospitals had not kept their 1975 records according to these new classifications and statistics, they argued that accurate reporting in the new mode would be impossible.[2] The Commission agreed to postpone until the following year the required reporting of costs according to the new classifications and the new statistics. Thus, for their 1975 cost reports, hospitals were given the choice between old style and new style reporting.

In Massachusetts, communication between the Rate Setting Commission and the hospitals is facilitated by an established Liaison Committee, whose members represent the interests and views of both rate regulators and providers of service. In addition to modifying the time schedule for the reporting switchover under the aegis of this committee, a number of technical review sessions were held with fiscal officers of five large Massachusetts hospitals and officers of the Massachusetts Hospital Association, during which detailed aspects of each of the RSC-401 draft schedules were reviewed. After initial revisions, the draft schedules were then tested at each of these hospitals. Feedback to the Commission from these trials resulted in still further revisions. The final version was hand delivered to the hospitals on October 31st. The hospitals, as required by law, had 90 days in which to fill them out in reporting their actual costs in the prior fiscal year.

The Charge Review Report Forms

During the same summer, passage of the hospital charge review law called for development of report forms to meet its requirements for projections of costs and volumes. Since Chapter 424 was only interim

legislation, the reports were conceived as a skeletal framework which could later be added to incrementally when a more comprehensive charge control system was developed. It was felt that a reporting format similar to those already used by hospitals in the cost reports would facilitate accurate and timely completion, and that again this would result in better quality data and less duplication of effort by hospitals, and would permit comparisons to be made with historical data from the cost reports.

Even more than in the cost report revision, the Commission staff worked closely with the Massachusetts Hospital Association in developing the forms - a day and night effort that began as soon as the law was passed. The time constraints were enormous; Chapter 424 went into effect August 1, 1975 and the law required the hospitals to submit to the Commission by August 21st any changes in charges they had made between April 15th and August 1st, their estimated base year cost and charge data, and their budget projections. As we shall see, this information includes total hospital cost in prescribed stepdown format, total hospital revenue in prescribed departmental format, statistical data for revenue-producing departments and detailed cost, charge and volume data for new and/or discontinued services. Although the Commission permitted time extensions, the press was still extreme.

Introducing the 1975 Forms

The fact that the hospitals in Massachusetts had been submitting reports to the Commission under various methods of rate regulation for so many years and that the major categories and format of the report forms remained familiar, appears to have facilitated the switchover to the new reporting requirements during the summar and fall of 1975.

The Rate Setting Commission staff cooperated with the Massachusetts Hospital Association in holding day-long regional workshops for hospital administrators and financial officers to acquaint them with use of the new charge control forms. During the period when hospitals

were preparing their submissions, the staffs of both organizations made themselves available for advice and assistance.

Although the charge review law allowed the Commission 60 days for its reviews prior to rulings on requested increases in charges, it voluntarily committed itself to acting on submissions within 45 days so that the hospitals could know their allowed budget for the upcoming fiscal year. Each hospital's report package was submitted to an individual analyst who checked it for completeness. (The 45-day review period began when all information from the hospital was in hand.) The analyst then checked the report for accuracy, and determined if the projected costs and revenues were allowable according to standards spelled out in the regulations. Clarification was often sought informally from the hospital. After supervisory review, the analyst forwarded recommendations on charge increase to the Commission and to the hospital. The Commission was able to complete 104 hospital reviews of projected charges in the three-month period between mid-August and mid-November.

Technical assistance was also offered to hospitals in completing their new RSC-401 report cost forms. Normally due to the Commission on December 31st, three months after the close of the hospital's fiscal year, an additional month's time was granted during the first year to hospitals that requested it.

IV. CHARACTERISTICS OF THE BASIC REPORTING SYSTEM

The design of both the original HCF-400 cost report and its 1975 successor were strongly influenced by the American Hospital Association's Cost Finding and Rate-Setting for Hospitals, (Chicago, Ill. 1968). The Commission recommends that hospitals use the basic accounts set forth in the A.H.A.'s 1966 Chart of Accounts for Hospitals, and the American Institute of Certified Public Accountants' 1972 Hospital Audit Guide as their basis for reporting. These documents provide a framework within which costs are assigned to both revenue and non-revenue producing cost

centers within which the individual hospital can establish its own internal responsibility accounting system.

No attempt has yet been made to develop a new uniform accounting or reporting system. However, seven pages are included in the cost report form that instruct hospitals how to make adjusting entries for certain types of costs to yield a degree of uniformity of reporting for items such as pharmacy and medical-surgical supplies. Furthermore, the long history of hospital cost reviews by the Commission, combined with a relatively low turnover of its staff, means that the Commission's hospital analysts have become personally familiar with the particular reporting conventions employed by the different hospitals. However, as the Commission intends to move towards departmental cost comparisons among hospitals in its proposed comprehensive charge control program, its bill now before the legislature contains authority to develop a uniform accounting and reporting system in the future.

A major deficiency of the old HCF-400 was the lack of precoding. All analyses had to be performed manually. In contrast, the new RSC forms are precoded and data from the scedules are presently being entered into the computer on a selective basis.

There are thirteen pages of instructions for filling out RSC-401. They include, schedule-by-schedule definitions of items that may differ from those in the A.H.A. chart; they indicate how and where data from one schedule should be used in completing others; they list and illustrate the reporting of natural expense categories; and they set forth the statistical bases to be used both in allocating costs of revenue-producing departments and of special service department costs.

The old cost report had requested the following data:

- Balance sheet;
- Departmental revenue by type: inpatient, newborns, ambulatory;
- Departmental revenue by payor;

- Statistical data on inpatient days, percent occupancy and length of stay by class of accommodation, maternity statistics and ambulatory statistics;
- Departmental expenses and an allocation of overhead expenses to revenue-producing departments;
- Schedules of non-patient and non-operating expenses;
- Ten ancillary department statistics and costs;
- Ratio of other expenses to total hospital expenses.

The new RSC-401 form provides the following additional data, either through expending the old report forms to include additional column heads and items, or by adding new schedules:

- Separation of restricted and unrestricted funds on balance sheet, and changes in fund balances;
- Departmental expenses categorized by natural expenses of salaries and wages, physician compensation, purchased services, supplies and expenses, major movable equipment depreciation;
- Cost and revenue in 15 types of routine service areas classified as medical, surgical, obstetrics, pediatrics, psychiatry, etc.;
- Twenty-four ancillary services reported according to service areas where provided; statistics and costs;
- Full-time equivalent personnel by department;
- Analysis of debt and interest expense;
- Utilization statistics by department and special care units.

The requirement that hospitals report patient services according to service classifications, e.g., Pediatrics, Obstetrics, Psychiatric, was a major change from the prior aggregation of such services into a single Adult Inpatient Services category, sub-categorized only by type of accommodation. Another change was the introduction of 14 new special service cost centers. Finally, in addition to the new statistical measures accompanying new categories, several changes were made in previous activity measures, including the introduction of several types of relative value scales. These will be described in a section to follow.

Accounts and cost centers by and large follow the A.H.A. chart definitions. The RSC-401 definitions of Emergency Room and O.P.D. Clinics illustrate the level of specification:[3]

- Emergency Room

  A service furnished to the injured or those requiring medical or surgical care on an unscheduled basis;

- O.P.D. Clinic

  Services to ambulatory patients receiving diagnosis and treatment on a non-emergency basis, usually scheduled in advance.

Bed complements are spelled out in detail. Each hospital reports the number of:

- beds licensed by the Department of Public Health;
- beds complements in actual operation at the beginning and close of the reporting period;
- the product of the number of licensed beds during the year and the number of calendar days in use;
- bed days available--the product of actual bed complements during the year and the number of calendar days in use.

Employing these definitions hospitals report their total inpatient days, percentage of occupancy, admission, discharges and average length of stay for the major patient services departments and for special care units such as I.C.U. and C.C.U.

Natural Expense Categories

The natural expense categories employed in the Massachusetts system are:

- Salaries and wages for non-physician employees;
- Hospital based physicians;
- Purchased services - both contractual and non-contractual;

- Supplies and expense;
- Major movable equipment depreciation.

Salaries and wages of personnel who work in more than one department or service unit and are supervised by more than one department or service unit are allocated to the appropriate cost centers on the basis of number of payroll hours in each center. During the course of field audits particular attention is paid to the way the hospital arrives at such joint cost allocation, according to standards of both accuracy and reasonableness.

Statistics for Cost Finding and Output Measures

As already noted, the Massachusetts Commission prescribes standard statistics for each department, to insure uniformity in reporting from hospital to hospital. No optional methods will be permitted after the first transition year. The statistical bases for non-revenue-producing departments are shown in Exhibit C.

EXHIBIT C: REQUIRED STATISTICAL BASES FOR COST ALLOCATIONS

Cost Category	Statistical Basis
DEPARTMENT EXPENSES	
Administration and General:	
Fringe Benefits*	Payroll Dollars
Other	Payroll Dollars
Rep'rs & Maint. of bldgs, Equip & Grds	Cost Work Orders*
Operation of Plant	Floor Area
Parking Facilities*	Floor Area
Motor Service	Percentage of Use
Laundry & Linen Service	No. of Dry lbs. Processed*
Housekeeping	Hours of Service*
Dietary:	
Cafeteria*	Full-Time Equivalents*
Patient Services	No. of Meals Served
Maintenance of Personnel	Average No. Living-In
PROFESSIONAL CARE - GENERAL	
Nursing Service Administration	Nursing Hours
R.N. & L.P.N., Education*	Assigned Hours of Service
In-Service Nursing Education*	Nursing Hours
Teaching Physicians*	Hours of Service*
Interns & Residents*	Hours of Service*
General Services & Med & Sur Supply(Gen)	Costed Requisitions*
Pharmacy Department (General)	Costed Requisitions*
Medical Records & Library	% of Time Spent on Records
Utilization Review*	Patient Days*
Social Service Department	No. of Cases
Other (Specify)	(Specify)

*New category or new statistic introduced in 1975 cost report revision (RSC 401).

Hospitals follow a prescribed sequence for allocating general service department costs. Special service costs are allocated to in-patient services, such as medical/surgical, obstetrics, special care units, etc., to ambulatory services and to other non-patient services. The required statistical bases for such allocations are as follows:

EXHIBIT D: STATISTICAL BASES FOR ALLOCATING SPECIAL SERVICE DEPARTMENTAL COSTS

Operating Rooms	Time* - (formerly #operations)
Recovery Rooms	Time*
Delivery Rooms	Number of Deliveries and Weighted circumcisions
Anethesiology	Time* - (formerly #operations)
Radiology - Diagnostic	Relative Value Units* - (formerly #films)
Radiology - Therapeutic	Relative Value Units* - (formerly #treatment)
Nuclear Medicine	Relative Value Units*
Laboratory	Relative Value Units* - (formerly #tests)
Electrocardiology	Number of Examinations
Electroencephalography (EEG)*	Number of Examinations*
Dialysis*	Number of Treatments*
Blood Bank*	Number of Transfusions*
Physical Therapy	Number of Treatments
Occupational Therapy*	Number of Treatments*
Speech Therapy*	Number of Treatments*
Shock Therapy*	Number of Treatments*
Psychiatry*	Hours of Treatments*
Oxygen Therapy*	Income*
Intravenous Therapy*	Income*
Medical & Surgical Service (Special)	Actual Cost or Income Basis Per Sch. IX-B (Col. 6)
Pharmacy Department (Special)	Actual Cost or Income Basis Per Sch. IX-A (Col. 4)
Pulmonary Disease*	Number of Treatments*
Emergency Service	Number of Visits
Ambulance Service	Number of Trips

*New category or new statistic introduced in 1975 cost report revision (RSC-401).

As can be seen from the number of starred items in Exhibits C and D, hospitals will have to accommodate to a good many changes in recording categories and in statistical counts as they switch over to the new cost report form. Among the more difficult changes are the adoption of the new relative value units in Radiology, Nuclear Medicine, and in Laboratory. The Radiology and Nuclear Medicine relative value scales first chosen were from A Reference for Radiological Relative Values and Professional Components of Radiology Services, with supplement, published by the American College of Radiology, March 1973. The Commission proposes that laboratory units be taken from A Workload Recording Method for Clinical Laboratories, American College of Pathologists (Copyright 1972, 1974 supplement). However, no definitive agreement has yet been reached on these particular scales.

The Cost Report Schedules

Hospitals report their costs to the Commission on 10 major schedules, 33 sub-schedules and 6 appendix schedules, as shown in Exhibit E. These are designed to present an overall picture of the hospital's financial situation, to reveal income by source of payment, to isolate the direct operating costs of general service and patient service centers, isolate non-allowable costs, and to arrive at the total allowable costs after allocations have been performed, and to pinpoint the expenses of depreciation and interest.

EXHIBIT E: THE RSC-401 SCHEDULES

Schedule	Content
I	Balance Sheet
II	General Fund Income Summary
A-	Inpatient Summary by Payment Source Ambulatory, and Non-patient Income
B-	Other Hospital Income
III	Statement of Changes in Fund Balances
A-	Statement of Revenues and Expenses
IV	Statistical Data
A-	Supplementary Payroll Information, Number of FTE Employees by Department
V A-	General Fund Expenses, by Department
B-	Statistical Bases for Apportionment
B-1	Adjusted Statistical Bases for Step-Down Allocations
C-	Allocation of Expenses and Bases for Apportionment
D-	Non-Patient Expenses
F-	Recovery of Expenses
VI	Distribution of Expenses by Service
A-1	Allocation of Special Service Department Cost Operating Rooms, Recovery Rooms
A-2	Delivery Rooms, Anesthesiology
A-3	Radiology-Diagnostic, Radiology-Therapeutic
A-4	Nuclear Medicine, Laboratory
A-5	Electrocardiology, Electroencephalography
A-6	Dialysis, Blood Bank
A-7	Physical Therapy, Occupational Therapy, Speech Therapy
A-8	Shock Therapy, Psychiatry
A-9	Oxygen Therapy, Intravenous Therapy
A-10	Medical & Surgical (Special), Pharmacy (Special)
A-11	Pulmonary Disease, Emergency Service
VII	Calculation of Loading Factor (Ratio of Total Other Expenses to Total Hospital Expenses)
VIII	Calculation of Per Diem Costs and Charges (Summary)
A-1	Comparison of Costs & Charges-Operating Room, Recovery Rooms
A-2	Delivery Rooms, Anesthesiology
A-3	Radiology-Diagnostic, Radiology-Therapeutic
A-4	Nuclear Medicine, Laboratory
A-5	EKG, EEG
A-6	Dialysis, Blood Bank

Schedule	Content
VIII (cont.)	
A-7	Physical Therapy, Occupational Therapy
A-8	Speech Therapy, Shock Therapy
A-9	Psychiatry, Oxygen Therapy
A-10	Intravenous Therapy, Medical/Surgical (Spec.)
A-11	Pharmacy (Special), Pulmonary Disease
A-12	Emergency Service
IX	Preliminary Adjusting Entries (with explanations)
A-	Pharmacy Cost Allocations
B-	Medical & Surgical Cost Allocation
X	Certification of Hospital Statement for Reimbursement

The cost report form also calls for six additional schedules to provide supplementary information permitting analysis and use of the major schedules. These are listed as appendices to RSC-401 as follows:

Appendix A: Depreciation expense in year of acquisition-building, land improvements, building improvements, fixed equipment, parking garage, etc.;

" B: Depreciation expense by department by building, building improvement, fixed equipment, and related square footage;

" C: Depreciation expense for major movable equipment by department and year of acquisition;

" D: Interest Expense Schedule;

" E: Analysis of accounts receivable;

" F: Free-bed income schedule.

As can be seen from the above listing, considerable emphasis is given to isolating the costs associated with special care and ancillary services, and the costs of depreciation and interest. Hospitals consider the requirement to break out depreciation expense by individual hospital building and related square footage (Appendix B) and depreciation for

major movable equipment to be a particularly difficult burden. The Commission, however, considers the information it secures to be especially valuable as it begins to develop cost impact studies in conjunction with the Department of Health's certificate-of-need program.

Reports to Implement the Interim Hospital Charge Review Program

As described earlier, the 1975 hospital charge review program mandates the Commission to approve an aggregate amount of net revenue such that the hospital's aggregate cost/charge ratio is allowable under the particular provisions of the law and regulations. The legislature gives the Commission authority to examine specific modifications in charges proposed by hospitals, and to ascertain that these are "supported by the reasonableness of the underlying costs" prior to approval. Given the extremely short time available to implement the new program and the Commission's intent to develop a more comprehensive charge control system in the future, the charge approval process for the present seeks only fairly global aggregated data. However, the CRS-1 forms are designed to be compatible with the Medicare cost reports and with RSC-401 forms in respect to both categories and statistical bases. As described above, they allow evolution towards a comprehensive combined cost/budget package should this be desired in the future system.

There are seven series within the CRS report package, labelled series A through G, most of which have several schedules and sub-schedules. In general, they report volume, cost and revenue for the hospital's Ratio Year (April 1974 - March 1975) and its current year (8 months actual and 4 months estimated), its budget year projections, together with volume adjustment schedules and inflation factor schedules for the current and budget year. The schedules identify private room accommodation differentials and public aided contractual adjustments, both of which are excluded from the calculation of cost/charge ratios.

The Commission can obtain the following information from the CRS report package:

- Aggregate cost and revenue data for the ratio year to determine the ratio against which the budget year cost/charge ratio will be measured.
- Cost data for both the base year and the budget year. The department expenses follow the cost report natural expense categories: non-physician salaries and wages, physician compensation, purchased services, and supplies and expenses.
- Revenue for the base year and the budget year by department.
- Utilization statistics by department for the base and budyear;
- The incidence and amount of cost which qualifies for treatment as a "cost beyond the hospital's control";
- A comparison of the hospital's projected volume compared to the "reasonableness standards" promulgated by the Commission's regulations;
- Data used to compute the hospital's inflation factor;
- Operating budgets for new services;
- An analysis of changes in unit cost and unit charges by department;
- A segregation of total cost increase into that caused by:
    - inflation
    - volume changes
    - costs beyond the hospital's control
    - new services

Most of the cost and statistical data requested from the hospitals was easily available, since they also reported it on other forms. The principal change lay in the budget year projections. However, most hospitals in Massachusetts already make such projections for internal control purposes, and they report eight-page budget summaries under provisions of the current Blue Cross contract.

V. VALIDATING, MANAGING AND USING THE INFORMATION

All financial reports submitted to the Commission must be certified. In addition, the Massachusetts Rate Setting Commission has always maintained a strong capability for external audit. As noted earlier, it has 24 auditors assigned by Blue Cross that perform a combined audit. As the cost reports come in to the Commission, they are subjected to a desk review for completeness and for checks with prior year reports, schedule by schedule, line by line. Such trend analysis, often for a three-year period, identifies areas for further review. Many problems can be handled by telephone communications with the hospitals. Decisions as to which hospitals and which departments within them should be field audited are reached according to a priority scheme determined by the likely financial impact that errors, if detected, would make. Certain catch-all categories, such as Consultants and Public Relations, are apt to be subject to special scrutiny.

Until quite recently, auditing efforts were largely directed at cost reporting; at present, the emphasis is shifting towards the accuracy of the statistical units reported. Currently, the changeover to new types of statistical measures gives the auditors an important educational as well as monitoring function.

Because the hospitals know their reports will be subjected to careful external audit, and because of the severe penalties attached to deliberate falsification, the Commission is confident that the quality of reporting by Massachusetts hospitals is unusually good. Comparison of data reported by the same hospital for the same time period to different agencies of state government for purposes of licensing, certificate of need, surveys, and hospital rate setting often revel marked discrepancies. On checking, the figures reported to the Commission usually appear to be more accurate. As a Commission staff member observed, "They know the figures they supply will be used, and that reporting accuracy is linked to dollars that the hospital depends on."

Processing and Managing the Data

Up to the present time, the Massachusetts Rate Setting Commission has relied on manual analysis of hard copy reports from the hospitals. This situation is now about to change, with Blue Cross staff entering the RSC-401 data on its computers on a shared access basis with the Commission. Staff at the Commission have access to a terminal, but rarely use it. For the most part, they depend on printouts from Blue Cross. Determination of the particular schedules or parts of schedules to be entered has not been made as of the date of this report. Decisions will be influenced by the analyses currently in progress that link data from the cost reports to those from the Hospital Charge Review program reports.

Types of Analyses Routinely Conducted

Analysts at the Commission routinely examine the following types of data from the hospital reports:

- Changes in each hospital's net margin of revenue over cost, cash flow position;
- Changes in fund balances during a two-year period;
- Changes in bed complements, patient days, ambulatory care visits;
- Occupancy rates by services and special care units;
- Changes in FTE's by patient care and other departmental centers, and changes in the costs thereof;
- Changes in unit cost and unit charges by department - both direct costs and after allocations;
- Changes in operating costs attributable to new services;
- Changes in operating costs associated with moves to new facilities.

In addition, the Commission undertakes a variety of special studies, either by its own staff or in conjunction with other governmental or private groups. For example, it is currently making an analysis of the capital and operating costs per square foot for different types

of hospital buildings, e.g., laboratories, corridors, meeting rooms, etc., to enable the Department of Health's determination of need reviewers to question proposed projects as to their impact on future interest, depreciation and operating costs. Using the result of these and related studies that depend on data from hospital cost reports, the Commission and the Department hope to be able to develop review standards for hospital expansion proposals that will allow better decisions on their architectural, contracting, and financing elements. Another collaborative study, with Massachusetts Blue Cross and Massachusetts Blue Shield, examined the cost impact of hospital-based radiologists switching to private billings.

VI. APPRAISAL OF THE PRESENT INFORMATION SYSTEM

The types of data collected by the Massachusetts Rate Setting Commission appears to be appropriate to the regulatory methods it is employing in both its Medicaid hospital reimbursement and its hospital charge approval prorams. In the administration of the Medicaid program formula, the Commission has available to it an index for adjusting hospital prices to the rate of inflation that appears to be at least a good start towards a satisfactory instrument.*

Since the Commission has chosen not to employ measures to

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* Some criticisms of the Hospital Price Index voiced by a Massachusetts Hospital official are: a) the 4 labor categories chosen as surrogates do not really correspond to the hospital labor categories - truly similar professsions were not tagged; the index fails to recognize particular supply and demand realities that affect the price of labor either in hospitals or in other industries; the food category of the W.P.I. is not a good surrogate for hospital food, although it is "miles ahead of the items in the consumer market basket reflected in the Consumer Price Index used in some systems." Hospitals object to the application of the H.P.I. to Medicaid rates in terms of average rather than the individual distribution of costs factors. (Interview with Durval Roderigues, Massachusetts Hospital Association, 1/19/76.)

differentiate hospitals according to type and quality of product in determining "outlier" hospitals under the formula, the absence of data on scope of services, casemix, approval status of education programs, etc., that would otherwise be considered necessary has not until recently been perceived as a lack by the Commission. The hospitals, on the other hand, consider that the failure to use such information leads to serious inequities in Medicaid reimbursement. The Commission is now questioning whether the average costs per patient-day measure may not overpay hospitals which may be making less than average service inputs to Medicaid patients. It, too, wants better data on the nature of service inputs and casemix.

The new cost report represents a substantial advance over its predecessors. Its data, if analyzed in conjunction with data from capital budgets, permit improved linkage of rate setting and determination of need processes that may prove useful in containing costs stemming from facility and service redundancies.

Since up to now the interim charge control system uses the RSC-401 cost reports and the new CRS forms almost entirely to produce trend analyses of each individual hospital, rather than to provide a basis for departmental productivity comparisons, the lack of uniform accounting and functional reporting systems, and common definitions of where to assign detailed costs has not constituted a serious obstacle. However, if the Commission receives the mandate it is currently seeking from the legislature to institute a comprehensive charge control system to govern all payors, the present information system will undoubtedly have to be once again expanded and refined.

In summary, information used for rate setting consists largely of financial and volume data and a set of 18 well-developed inflation indicators. Information on scope and utilization of high technology services, patient casemix and characteristics, and measures of quality of care are absent. However, the Commission and the state certificate of need agency are beginning to share their data and to cooperate in

analyses.

Although there is no uniform accounting and reporting system by hospital function, the particular types of reimbursement methods used so far do not rely heavily on comparative unit of service analysis, so the lack is not a major handicap. Although the hospitals report their costs and their budgets on separate forms, links have been provided to permit useful analyses. Sharing of a single cost report by the Commission and by Blue Cross reduces the reporting burden on hospitals. Likewise, the single audit reduces demands on their time. Both these measures presumably reduce overall administrative costs.

The Commission is handicapped by lack of data automation, although this is now being remedied. On the other hand, it has an unusually good capability to conduct trend analyses of financial data, due to the long history of its cost report submissions and the basic compatibility between prior and current formats.

The Commission's capacity to validate the quality of the financial reports through the large staff of auditors available to it perhaps constitutes the greatest single strength of the system's operation. This auditing capacity will be particularly important in the immediate future as hospitals switch to new cost reporting categories and to the use of new statistical measures.

Looked at in relation to criteria presented at the 1975 Conference on Issues in Uniform Reporting for Hospital Rate Reviews, the various strengths and weaknesses of the Massachusetts system are summarized in Exhibit F.[4]

EXHIBIT F: SOME STRENGTHS AND LIMITATIONS OF THE MASSACHUSETTS INFORMATION SYSTEM

Strengths	Limitations
- The Commission's sharing of data with the Massachusetts certificate of need body will permit the perspective of population-based resource and mobidity data to be introduced into the Commission's decision-making processes and will permit greatly improved economic impact analysis to be brought to bear on planning decisions. The three-year capital budget submissions are useful to both regulatory agencies.	- The Commission lacks several other types of data that may be considered necessary for equitable rate setting, namely: - patient casemix and patient characteristics; - scope of hospital services; - utilization of high technological services; - reports from licensing agencies; - hospital accreditation status; - hospital plans for new programs and program expansions not subject to certificate of need approval;
- The Hospital Price Index is generally accepted as a good beginning towards measurement of labor and price inflation.	- Application of the H.P.I. to the Medicaid formula is crude, ignoring the instrument's capability to deal with differences in exogenous and endogenous factors that affect individual hospitals.
- Data about hospital-based physicians shown.	- No information is available to show differences among hospitals as regards attending staff - numbers, types of specialties, board certification status, etc. - The Commission lacks information by which to identify inappropriate patient admissions, procedures, and length of stays.
- The cost report is designed to serve reimbursement methods used by most payors.	- Medicare's failure to accept the cost report form results in duplication of effort.

Strengths	Limitations
- Incremental improvements in financial reporting were accomplished in a manner that preserves capacity for trend analysis.	- The Commission has not developed a uniform chart of accounts or a uniform reporting system to permit inter-institutional unit cost comparisons on a functional basis.
- Hospital participation in the 1975 revision of the cost report improved it and increased its acceptance.	
- Pretesting of new cost report schedules in 5 hospitals resulted in many detailed improvements in the final form.	- Not enough lead time was allowed for cost report revision.
- Phased-in change in reporting, together with education efforts by the Commission and the hospital association probably served to minimize reporting inaccuracies in categories and types of statistics.	- Delays in reaching agreement on relative value scales to be used may impede prompt adaptation to new output measures.
- Analyses from new cost report data permit displays of service utilization to show areas of excess capacity, FTE costs per service, depreciation costs for different types of facilities, etc.	- Lack of automation impedes or prohibits many other types of useful analysis.
- Maximum collaboration between hospitals and Commission in design of charge review forms may have prevented serious difficulties that might have occurred under extreme time constraints imposed by new law.	- Six-week period for charge review form design permitted only aggregate data reporting.
- The cost report includes a schedule that isolates revenue and expense according to type of payor, to facilitate the calculation of factors for bad debts,free care and contractual allowances included in the charge review program.	- The accuracy of source of payment data is open to question here, as in other report systems, due to changes in billings after patient discharges.

Strengths	Limitations
- The displays of utilization levels and FTE costs by service that hospitals report on the new forms may be helpful to trustees interested in raising questions on need to reduce excess beds and personnel. However, these types of management information have long been available in most of the larger hospitals of the state.	- Direct improvement in hospital internal management objectives and controls are not likely to be inspired by the exercise of submitting the present cost report and charge review program forms. Budget projections are too general to demand new levels of departmental accountability.
- The Commission's resources for audit combined with legal sanctions against falsification permit it to monitor and improve the quality of data reported. Emphasis of the auditors on the accuracy of the statistics reported as well as of the dollars is an unusual feature of the system.	- The switch to new statistics now underway may lead to special reporting problems for the next few years.

Plans to Change or Add to the Information System

The Commission is well aware of the shortcomings of its present data system and, while maintaining its incremental approach, is planning to overcome them. It hopes to gain access to patient characteristics and patient casemix profiles, by hospital, from a statewide uniform discharge abstract reporting service currently being organized by the Massachusetts Department of Health as part of the Cooperative Health Statistics System. It is also exploring means to use data from other components of the CHSS to expand its present information on detailed scope of hospital services without increasing the hospital's burden of new required reports. In order to gain answers to the unresolved question of whether Medicaid patients are receiving the same input of services as other patients, the Commission may in the future seek to obtain service utilization profiles from utilization review bodies. In particular, the Commission is anxious to learn both actual and comparative utilization rates for high technology services, both by Medicaid

patients and by all patients.

Future changes in the cost and budget forms will be influenced by whether the Massachusetts legislature passes a comprehensive charge control bill, whether it makes changes in the Medicaid program, and whether Medicare eventually joins the system under an experimental program waiver. A developmental contract with the Social Security Administration has been applied for. In any event, it seems likely that the Commission's requirements for budget projections under the charge control legislation will become considerably more detailed over the next few years and that it will work towards a consolidated cost and budget review form.

FOOTNOTES

1. Berger, Laurence B., Sullivan, Paul R., Measuring Hospital Inflation: A Composite Index for the Measurement and Determination of Hospitals in the Commonwealth of Massachusetts, Lexington, Mass., Lexington Books, D.C., Health, 1975.

2. Cluley, Carson H., representing the Massachusetts Hospital Association. Presentation, Commonwealth of Massachusetts Rate-Setting Commission, August 29, 1975. Proposed Regulations Governing the Determination of Prospective Inpatient, Outpatient and Well Newborn Rates and the Revisions of Cost Reporting Forms.

3. The Commonwealth of Massachusetts Executive Office of Human Services, Rate-Setting Commission, Instructions Pertaining to the Hospital Statement for Reimbursement (Form RSC-401) p. 11, 1975.

4. The criteria for the conference along with its proceedings have been published as: Uniform Reporting for Hospital Rate Reviews: Criteria to Guide Development and Proceedings of a 1975 Conference, by Katharine G. Bauer, under DHEW contract #600-75-0142, and may be obtained from the Office of Research and Statistics, Social Security Administration.

APPENDIX I: COMPONENTS AND INDICATORS EMPLOYED IN THE MASSACHUSETTS HOSPITAL PRICE INDEX

COST CATEGORIES AND ECONOMIC CHANGE INDICATORS

Reimbursable Cost Category	Title	Definition	Economic Change Indicator	Source	Definition Explanation
CC(1)	Professional/Managerial Salaries, Wages, and Fees	Reimbursable salaries, wages, and fees for all physicians, residents, interns, directors of nursing, assistant directors of nursing, and other managerial personnel, such as administrators, assistant administrators, controllers, personnel directors, department heads, and assistant department heads.	I(1)	Bureau of Labor Statistics (BLS); National Survey of Professional, Administrative, Technical, and Clerical Pay (PAT)	The aggregate percentage change in the average annual salaries of the following occupations: Attorneys, Level VI Chemists, Level VIII Engineers, Level VIII Chief Accountants, Level IV Personnel Directors, Level IV
CC(2)	Nursing Salaries and Wages	All reimbursable nursing salaries and wages, excluding salaries and wages for directors of nursing, assistant directors of nursing, and nurse's aides.	I(2)	BLS/PAT	The aggregate percentage in the average annual salaries of the following occupations Attorneys, Level II Chemists, Level III Engineers, Level II Accountants, Level III Personnel Directors, Level I
CC(3)	Skilled Employee Salaries and Wages	Reimbursable salaries and wages for all non-supervisory therapists, social workers, dietitians, technicians, and other skilled employees, such as accountants and computer programmers.	I(3)	BLS/PAT	The aggregate percentage change in the average annual salaries of the following occupations: Chemists, Level II Accountants, Level II Engineering Technicians, Level III Job Analysts, Level II Draftsmen, Level II
CC(4)	Other Employee Salaries and Wages	Reimbursable salaries and wages for all other employees *not* included in CC(1), CC(2), *or* CC(3), above.	I(4)	BLS/Employment and Earnings	The percentage change in the average hourly earnings of non-supervisory workers in the private sector.
CC(5)	Fringe Benefits	Reimbursable costs comprising the "fringe" benefits of employees, including hospitalization insurance, workmen's compensation, employee group insurance, social security taxes, annuity premiums, past service benefits, pensions, and any other costs incurred for the direct benefit of the employees.	I(5)	BLS	The percentage change in the CPI; All Items.
CC(6)	Food	The reimbursable cost of all foodstuffs used in the hospital, including the fair market value of donated (and used) and hospital grown (and used) food.	I(6)	BLS	The percentage change in the WPI; Processed Foods and Feeds, less the processed feeds component.

Reimbursable Cost Category	Title	Definition	Economic Change Indicator	Source	Definition Explanation
CC(7)	Drugs and Pharmaceuticals	The reimbursable cost of all drugs and pharmaceuticals dispensed by prescription or otherwise from the hospital pharmacy, outpatient, or emergency departments. The cost of prescriptions purchased from an outside pharmacy should be accounted for in CC(15), below.	I(7)	BLS	The percentage change in the WPI; Drugs and Pharmaceuticals.
CC(8)	Films and Photographic Supplies	The reimbursable cost of all films and photographic supplies used in the hospital.	I(8)	BLS	The percentage change in the WPI; Photographic Supplies.
CC(9)	Printing, Stationery, and Office Supplies	The reimbursable cost of all printing, stationery, and office supplies, regardless of the department charged [Note: postage should be charged to CC(19), below].	I(9)	BLS	The percentage change in the WPI; Office Supplies and Accessories.
CC(10)	All Supplies Not Accounted For in CC(6) - CC(9), Above	The reimbursable cost of all *supplies* not accounted for in the preceding four cost categories.	I(10)	BLS	The percentage change in the WPI; Industrial Commodities, less the following groups: fuels and related products and power; machinery and equipment; furniture and household durables; transportation equipment; and miscellaneous products.
CC(11)	Telephone/Telegraph	The reimbursable cost of all telephone/telegraph service as billed by the telephone/telegraph utility. Rental paid on general intercommunicating and paging systems should be included in CC(17), below.	I(11)	BLS	The percentage change in the CPI; Residential Telephone Service.
CC(12)	Electricity	The reimbursable cost of purchased electric current, as billed by the electric utility.	I(12)	BLS	The percentage change in the WPI; Commercial Power (40 kw demand) *or* Industrial Power (500 kw demand), New England.
CC(13)	Gas	The reimbursable cost of purchased gas, as billed by the gas utility.	I(13)	BLS	The percentage change in the WPI; Gas, natural.
CC(14)	Petroleum	The reimbursable cost of purchased petroleum, as billed by the petroleum supplier.	I(14)	BLS	The percentage change in the WPI; Middle Distillate (No. 2) *or* Bunker C, New York.

APPENDIX I CONCLUDED

Reimbursable Cost Category	Title	Definition	Economic Change Indicator	Source	Definition Explanation
CC(15)	Purchased Services From Outside Organizations	The reimbursable cost of all *services* purchased from outside organizations, including, but not limited to, accounting and auditing fees; data processing services (excluding computer leasing), collection fees; legal fees and expenses; all maintenance and repairs made by outside concerns to hospital facilities, grounds, or equipment; catering services, housekeeping services; laundry and linen services; the cost of prescriptions purchased from an outside pharmacy; fees of outside laboratories for pathological and other laboratory services; and so forth.	I(15)	BLS	The percentage change in the CPI; Services.
CC(16)	Buildings and Fixed Equipment	Reimbursable depreciation (straight-line plus price-level component) associated with buildings and fixed equipment.	I(16)	Marshall & Stevens	The percentage change in the Marshall & Stevens index for buildings and fixed equipment.
CC(17)	Major Movable and Leased Equipment	Reimbursable depreciation (straight line plus price-level component) associated with major movable equipment, plus all equipment leasing/rental expenses.	I(17)	American Appraisal Company	The percentage change in the American Appraisal Company's index for major movable equipment.
CC(18)	Interest	Reimbursable interest expense, total.	I(18)	BLS	The percentage change in the CPI; Mortgage Interest Rate.
CC(19)	Reimbursable Costs Not Categorized Elsewhere	Elements of total hospital reimbursable cost not included in any of the preceding 18 cost categories, including, but not limited to, administrative travel and meeting expense; newspaper advertisements; insurance and bonding expense; taxes (or in lieu of taxes); association dues; postage; and so forth.	I(5)	BLS	The percentage change in the CPI; All Items.

Source: Berger and Sullivan (see footnote #1 on page 13 above), Table II-1.